

MAGICOM MAIN LOGIC SCHEMATIC REVISIONS

- A. Original release.
- B. R3: Was 1K; became 300.
D0 on U20 incorrectly shown as Pin 8. Changed to pin 18 on 6/23/83.
- C. Addition of capacitor C63, 220pf disc between U24, Pin 3 and ground. 6/27/83.
- D. C54: Was 0.001uf disc. Became 0.1uf disc on 6/29/83.
C63: Was 220pf disc. Became 0.001uf disc on 6/29/83.
74LS244 inserted between 4MHz signal and U1 (Z80), Pin 6. U17, Pins 13 and 7 used - these were formerly a spare gate. 6/29/83.
- E. C40, 0.01 disc tied between U22, Pin 2 and ground is deleted.
74LS244 inserted between Q1 collector and U22, Pins 1 and 2. U17, Pins 11 and 9 used - these were formerly a spare gate.
U1(Z80), Pin 25 cut from U7 (MC68705P5), Pin 9. U1(Z80), Pin 25 tied to R48 (new addition) 4.7K $\frac{1}{4}$ W 5% resistor. Other side of R48 tied to +5V.
U18(74LS245), Pin 19 cut from U7(68705), Pin 14. U18, Pin 19 tied to +5V.
U17(74LS244), Pin 17 cut from U7, Pin 19. U17, Pin 17 tied to +5V.
U23(74LS244), Pin 1 cut from U22(74LS00), Pin 11. U23, Pin 1 tied to ground.
All of "E" above were effective on 7/8/83.
- F. Deletion of the following effective 7/8/83:
 - U5 74LS244
 - U6 74LS393
 - U12 74LS244
 - U13 74LS393
 - U17 74LS244
 - U18 74LS245Substitute U23 for U17 (74LS244) for clock signal into Z80 (U1, Pin 6 from U23, Pin 7) and reset signal into U22, Pins 1 and 2 from U23, Pin 9 effective 7/8/83.
- G. C63: Was 0.001uf disc. Became 470pf effective 9/5/83.
- H. Reset signal sent from U23, Pin 9 to U16, Pin 1 to cure false coin count on power up.
- I. Reference letter not used.

J. Correct pin out for inputs on U20(74LS244) effective 9/16/83.

K. C63: Was 470pf disc; became 330pf disc.

C17: Was 330pf mica; became 330pf disc.

Addition of U31(74LS74) to divide clock.

Y1: Was 4.000MHz; became 16.000MHz.

U24: Was 74LS04; became 74S04.

Addition of R29 between U29, Pin 4 and C24.

Addition of R50 between U30, Pin 4 and C50.

These two additions allow option for U29 and 30 with the following components:

| | <u>LM383</u> | <u>CA2002</u> |
|----------|----------------|-----------------------------|
| R49, R50 | = 0 ohm jumper | 2.2 ohm, $\frac{1}{4}$ W 5% |
| C24, C50 | = 0.2 Disc | 0.1 disc |

Addition of Jumper W1, when installed, allows board to be used with Pioneer 7820 disc player with proper software.

Deleted: U7 MC68705

Addition (reinstallation) U6, 74LS393

U13, 74LS393

U6, Pins 2 and 12, and U13, Pins 2 and 12 all grounds.

U6, Pin 6 tied to U26, Pin 11 (RTC).

U13, Pin 13 tied to U26, Pin 5 (GI CLK)

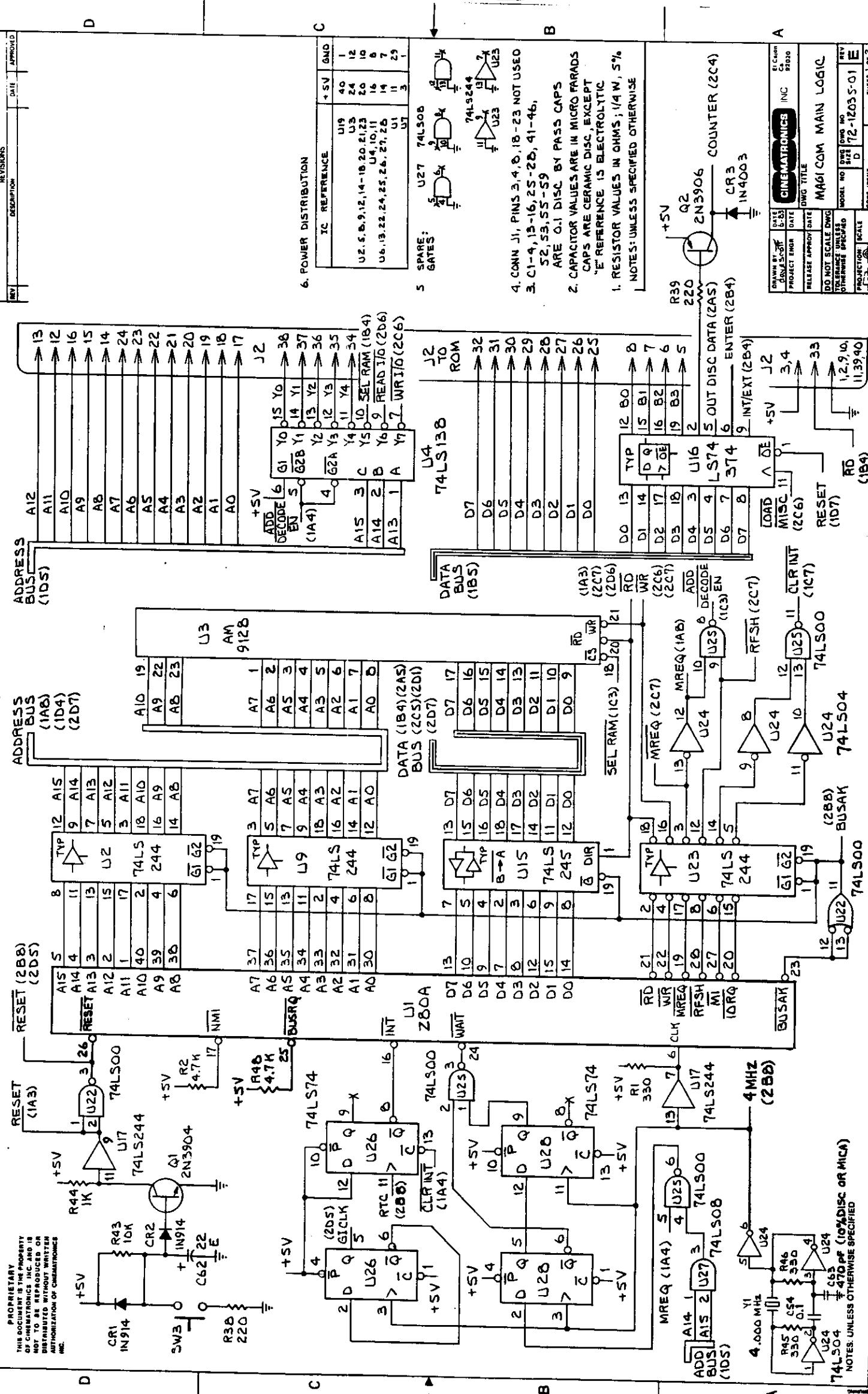
All of "K" above effective 10/10/83.

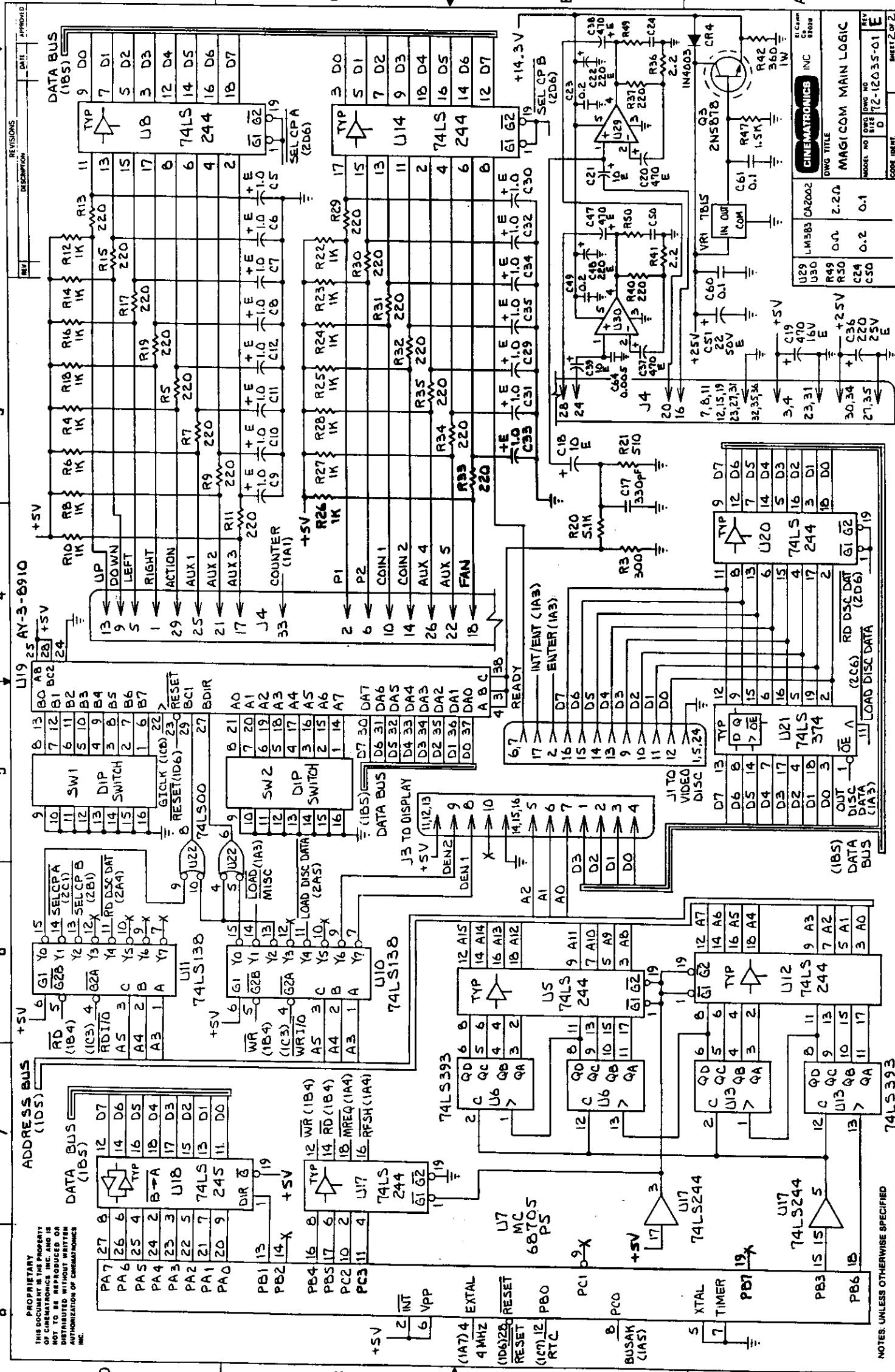
"K" revision schematic is for "C" revision printed circuit board used with LDV-1000 laser disc player.

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| REVIEWS | DESCRIPTION |
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| REVIEWS | DESCRIPTION |

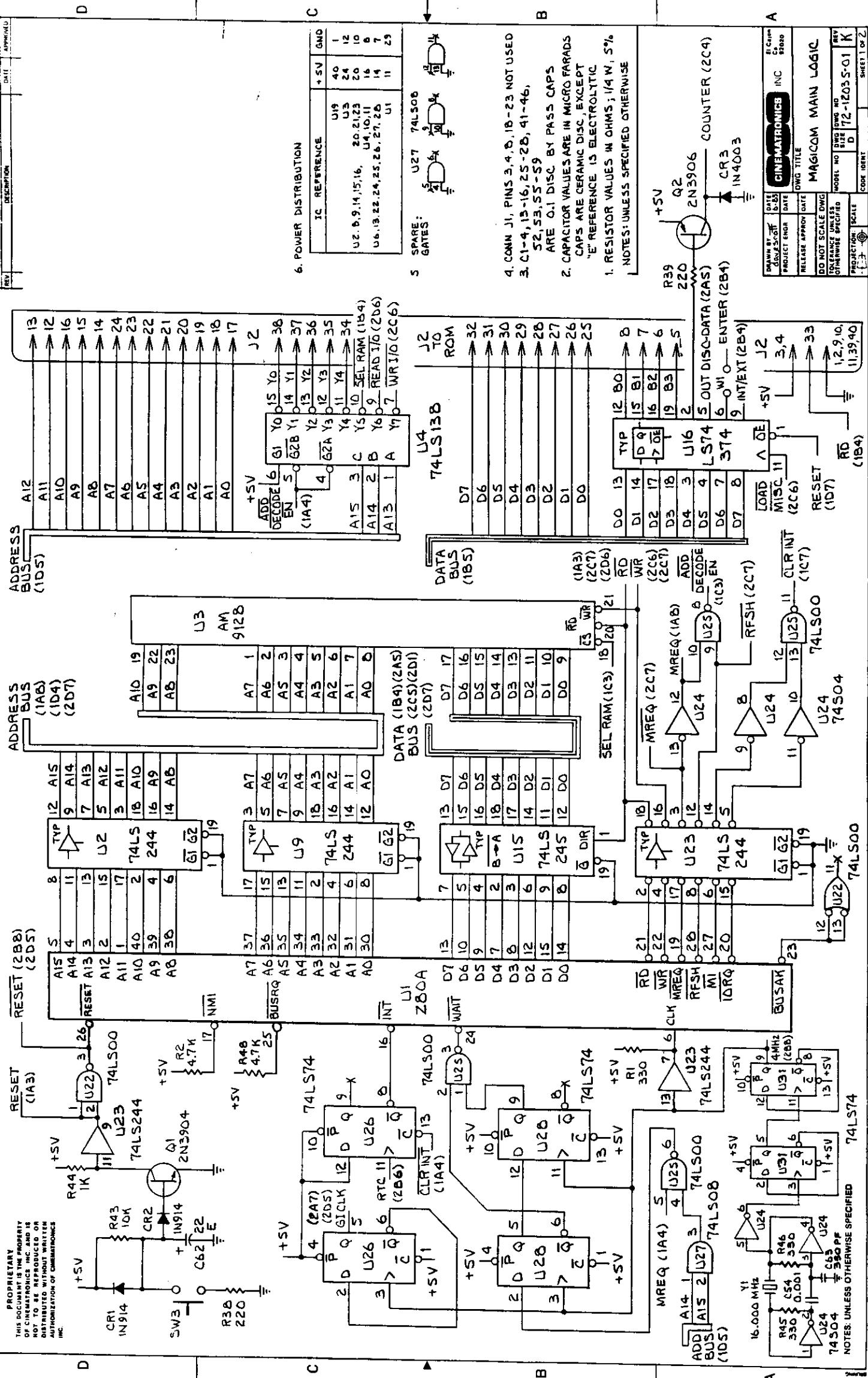
2020 RELEASE UNDER E.O. 14176





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| REVISIONS | | APPROVED |
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| REV | DESCRIPTION | DATE |
| U29.30 | LM383 | CA2002 |
| R49.50 | 0 | 2.2 |
| C24.50 | 0.2 | 0.1 |

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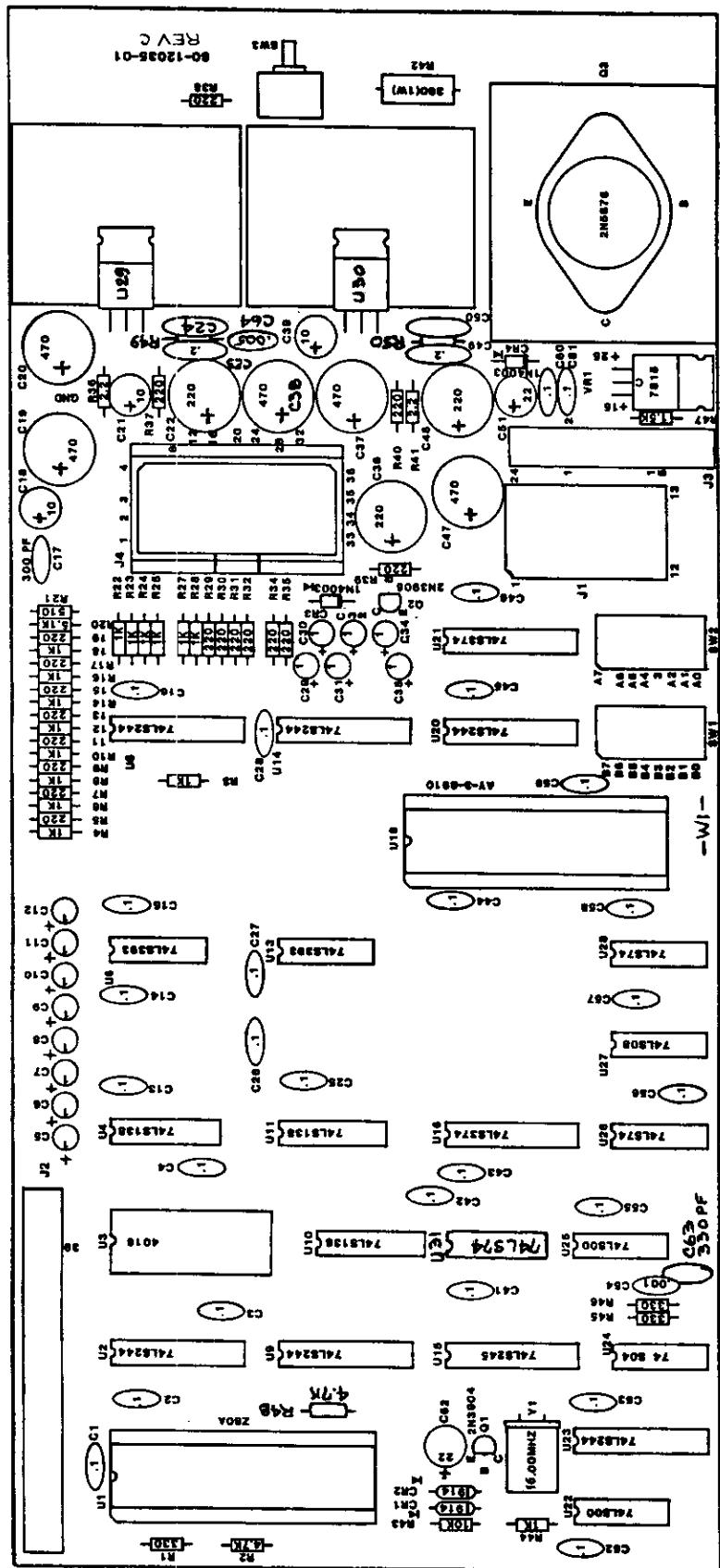
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| MATERIAL: | DRAWN BY | DATE | DWG TITLE MAGICOM MAIN LOGIC | DWG NO. | | REV G SHEET 1 OF 1 | |
| | CLAUDETTE | 6/83 | | 01 | - | | - |
| | PROJECT END | DATE | | 01-12035-01 | | | |
| | RELEASE APPROV | DATE | | D | | | |
| FINISH | | DO NOT SCALE DWG | | MODEL NO. | | | |
| | | TOLERANCE UNLESS OTHERWISE SPECIFIED | | SIZE | SCALE | | |
| | | PROJECTION | SCALE | CODE IDENT | | | |

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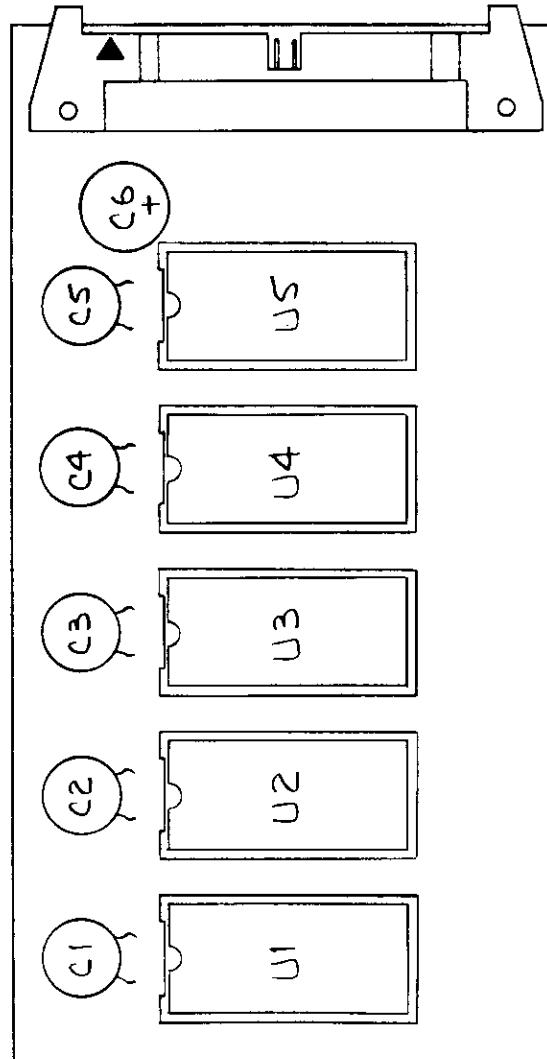
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| REV | DESCRIPTION | | |
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|-----------|--|------------------------------|----------------------------|
| MATERIAL: | DRAWN BY: <u>DALE SCOTT</u> | DATE: <u>6-23</u> | CINEMATRONICS INC |
| PROJECT: | ENGR: <u>C.</u> | DATE: | EDITION 9-2020 |
| RELEASE: | APPROV: | DATE: | DWG TITLE |
| | | | STARCOM ROM |
| FINISH: | DO NOT SCALE DWG | | |
| | TOLERANCE: UNLESS OTHERWISE SPECIFIED | MODEL NO. <u>81-12056-XX</u> | DWG NO. <u>81-12056-XX</u> |
| | | REV. <u>C</u> | REV. <u>A</u> |
| | PROJECTION: | SCALE: <u>2:1</u> | CODE IDENT: <u>1</u> |

A

A
DWG NO. 81-12056-XX

3. DRAGON'S LAIR (81-12056-01): U1-U5, 2764 WITH SOCKET
2. C6; 470 uF, 16 V MINIMUM, ELECTROLYTIC
1. C1-C5; 0.1 uF, 50V, DISC

NOTES: UNLESS OTHERWISE SPECIFIED

SHEET 1 OF 1

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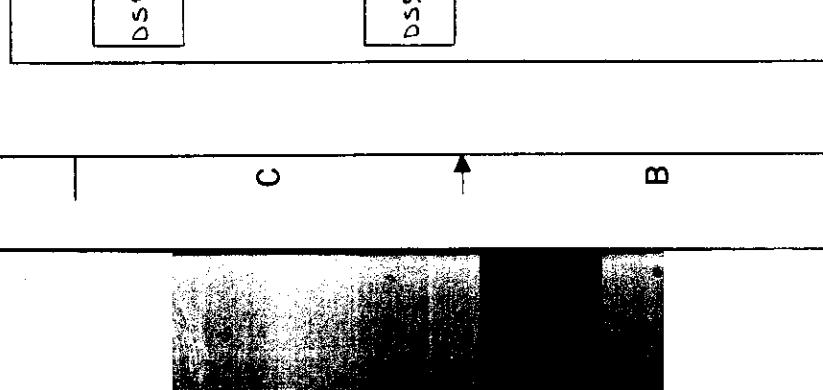
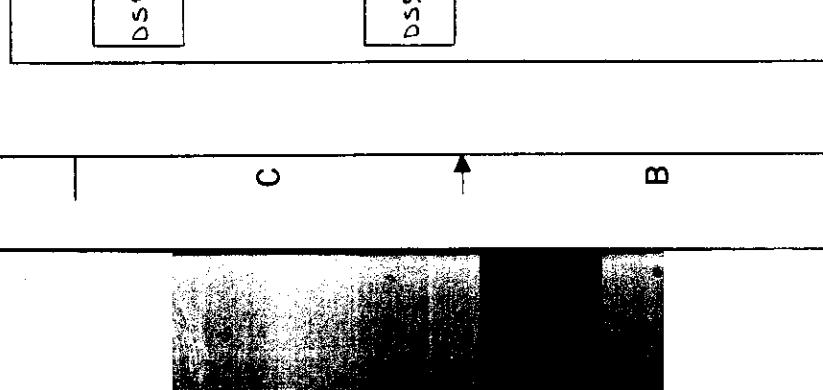
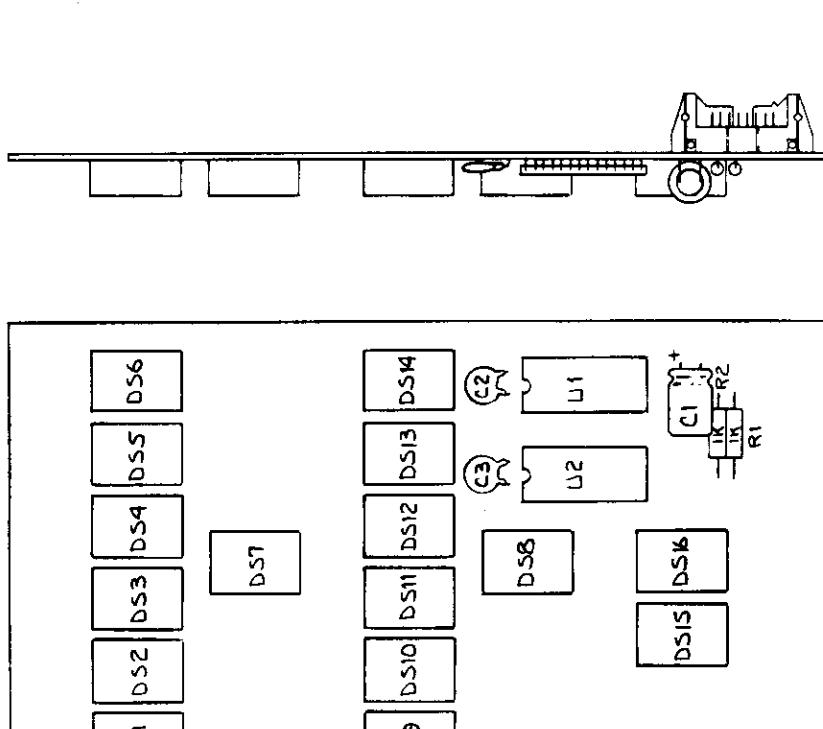
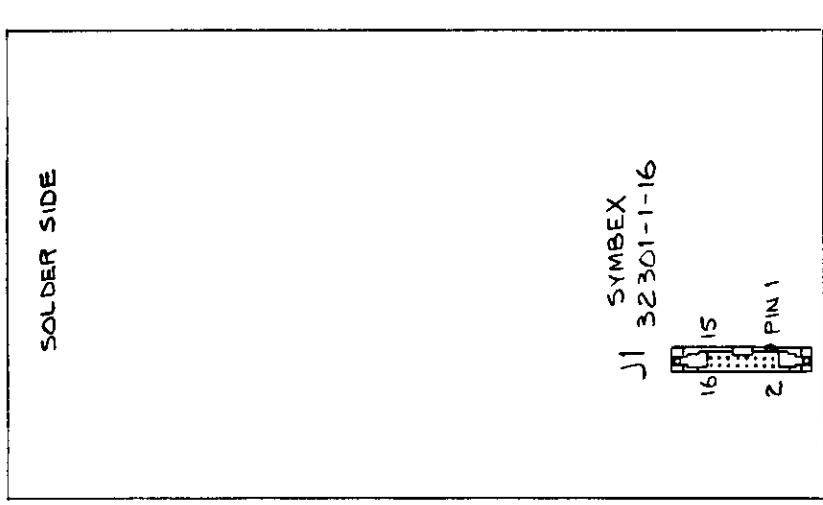
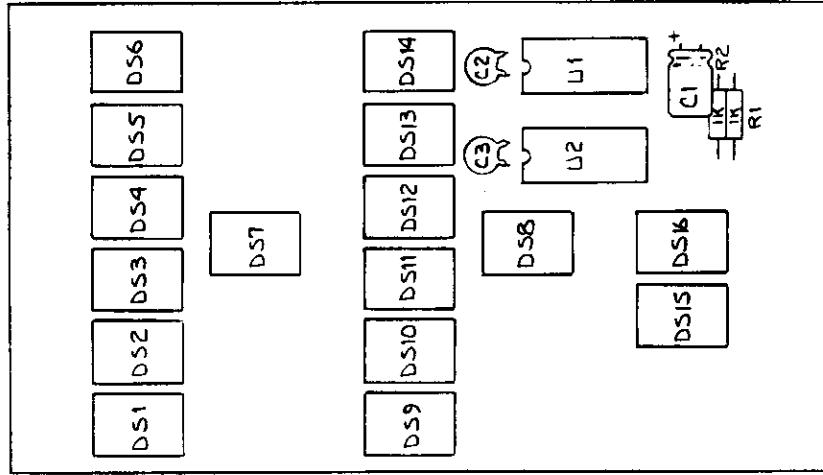
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| B | | A1-D R1, R2 | | 9-29-83 | |



DATA POWER

10042-32
DATA POWER P.S.

DATA POWER P.S.

FUSE ONE IS: SB, 250V

2011 REGISTERS ARE NOW

ארכ' 16 RESUME

1. RESISTOR VALUES ARE

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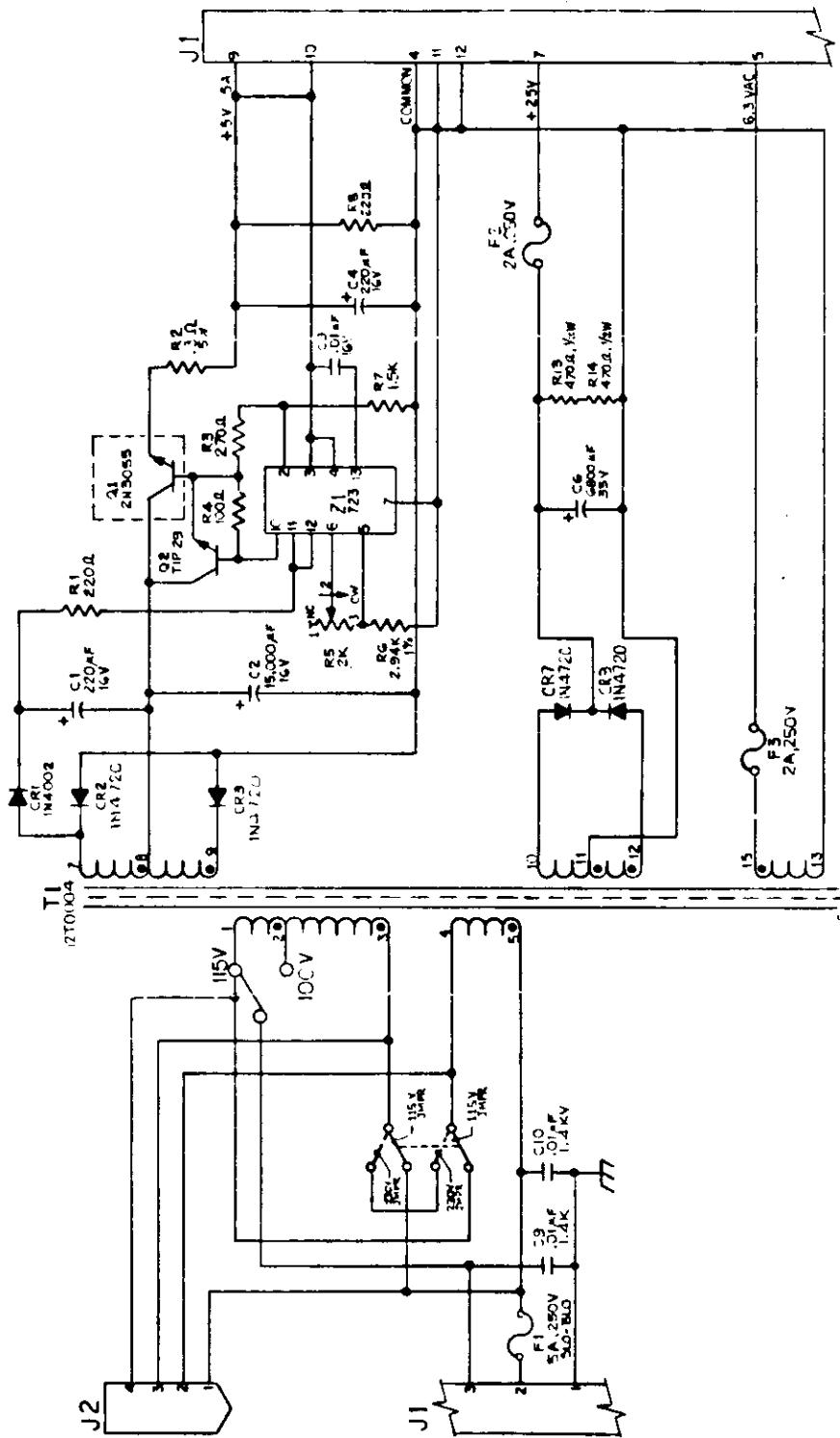
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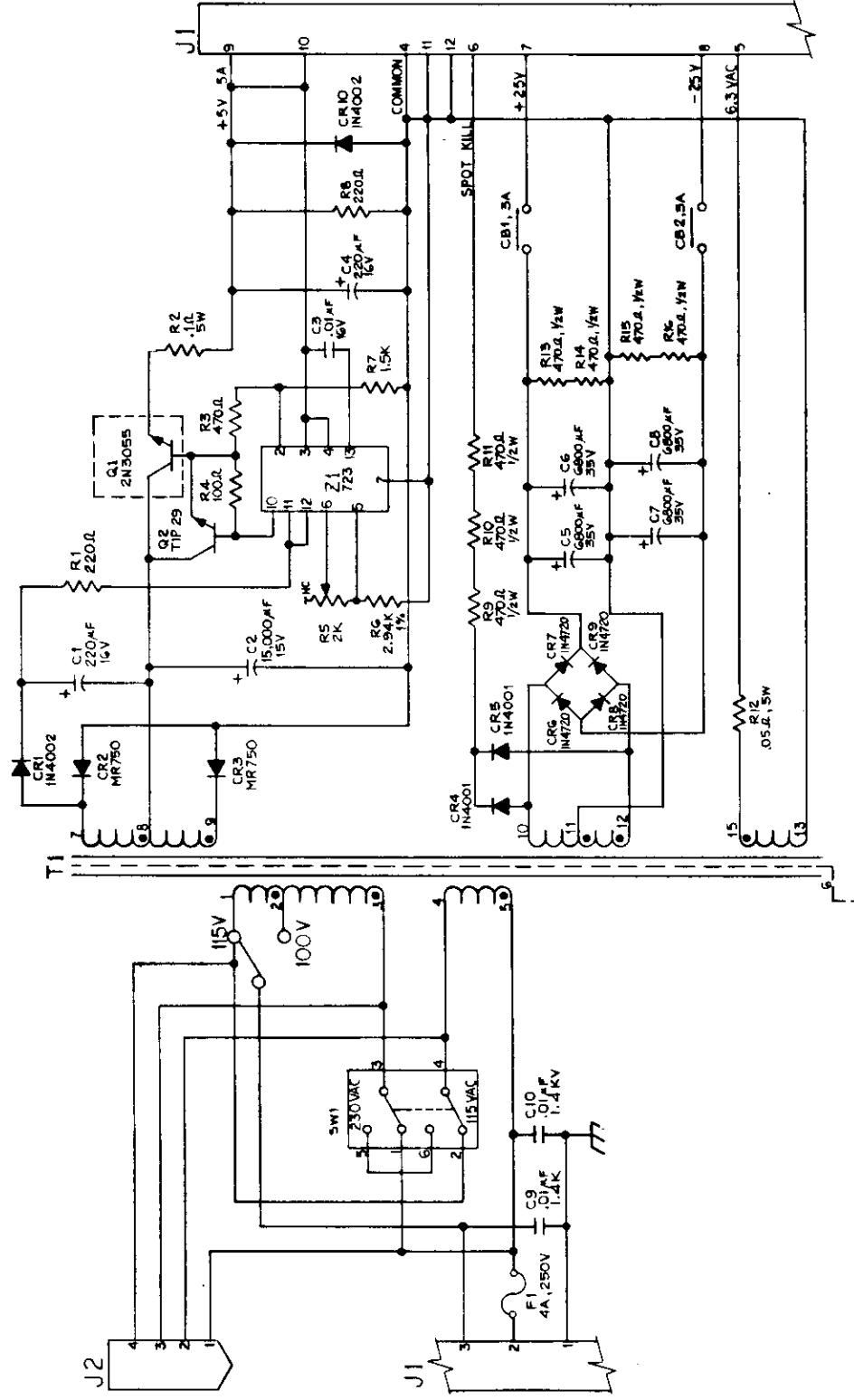
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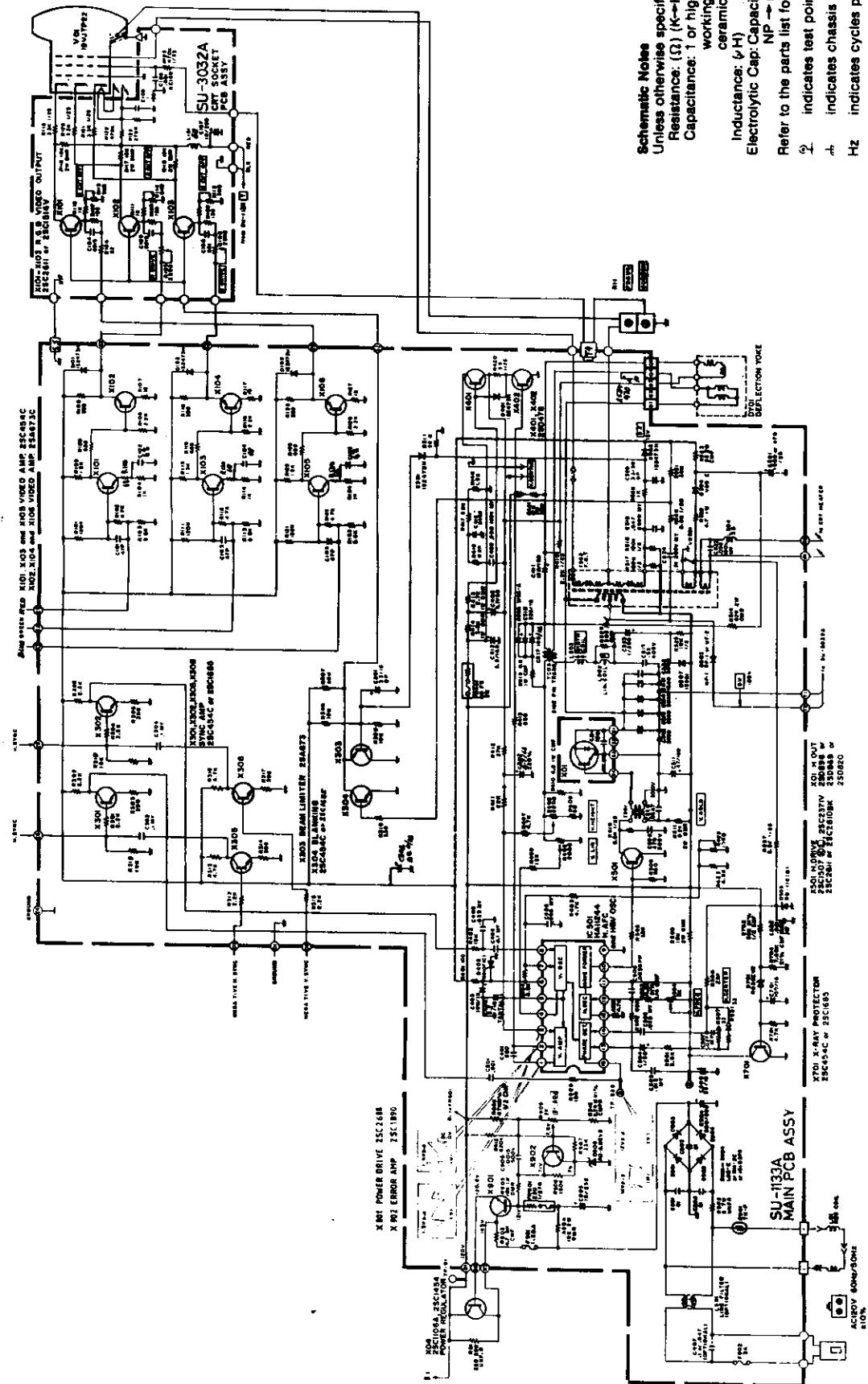
| ZONE | LYR | DESCRIPTION | DATE | APPROVED |
|------|-----|-----------------------------|-----------|----------|
| O1 | | PROTOTYPE | 4 DEC 80 | RAT |
| A | | PRODUCTION | 13 JAN 81 | RAT |
| B | | ADD C9,10. SEE ECO 0025 "A" | 29 JAN 81 | RAT |

DRW. NO. FROM 12A0026-00



| REVISIONS | | DESCRIPTION | | DATE | | APPROVED | |
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| B | | ADD C9,10. SEE ECO 0025 "A" | 29 JAN 81 | RAT | | | |
| DRW. NO. FROM 12A0026-00 | | | | | | | |

| PART OR IDENTIFYING NO. | | NOMENCLATURE OR DESCRIPTION | | PARTS LIST | |
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| C251 | | | | | |



California Notes

Resistor: R_{12} Unless otherwise specified
Resistance: $(12) (K\leftrightarrow K\Omega, M\leftrightarrow M\Omega), 1/4 (W)$ carbon resistor

Capacitance: ↑ or higher \rightarrow (pF), less than 1 \rightarrow (F)
 working voltage \rightarrow 50 (V)
 ceramic capacitor

Inductance: (μ H)
Electrolytic Cap: Capacitance Value (μ F)/working voltage (V).
NP \leftrightarrow non-polar (or bipolar) electrolytic capacitors

Refer to the parts list for additional component information.

2. indicates chassis around unless otherwise specified

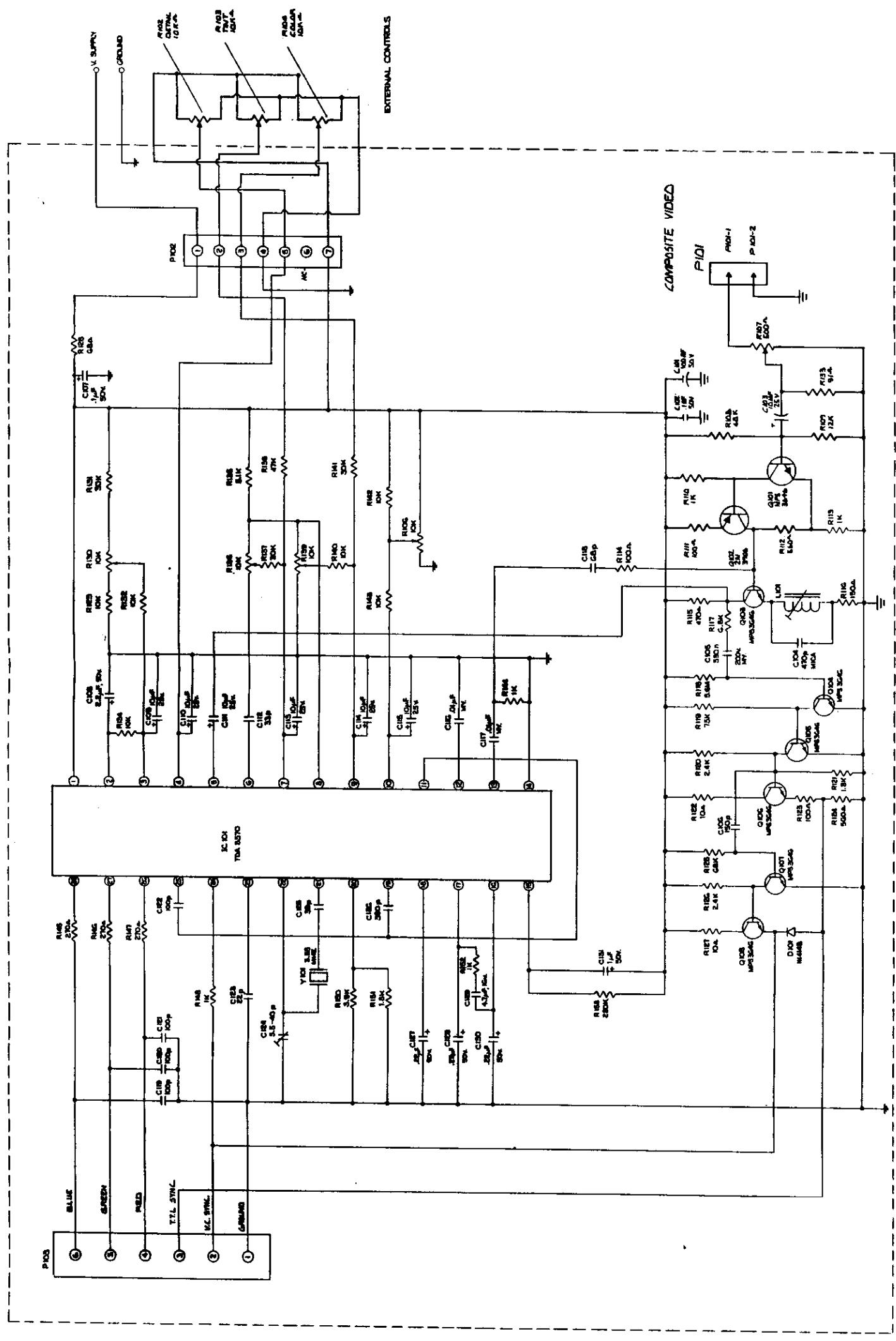
Indicates cycles per second

For safety purposes (and continuing reliability)
replace all components marked with safety symbol with

Replace all components marked with safety symbol with identical type.
NOTE: FB → fusible resistor

NOTE: R1 → fusible resistor (→)

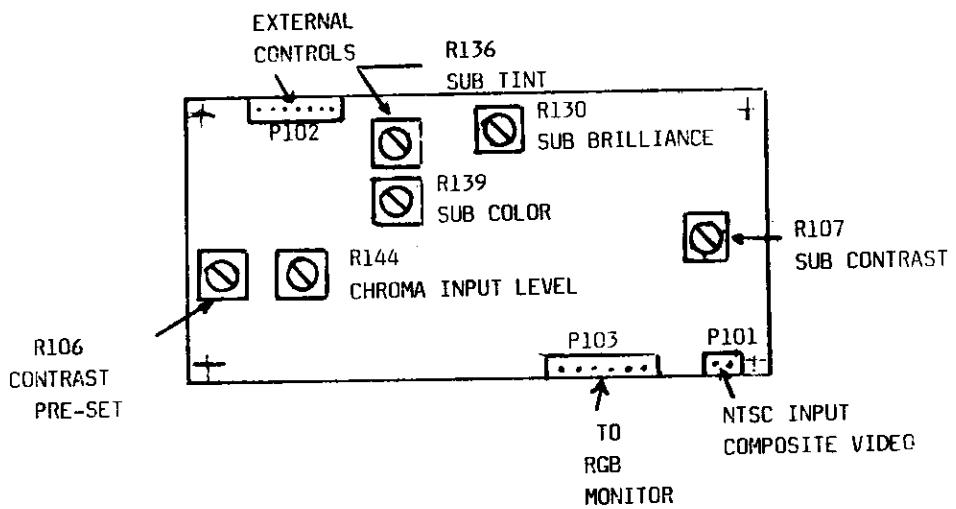
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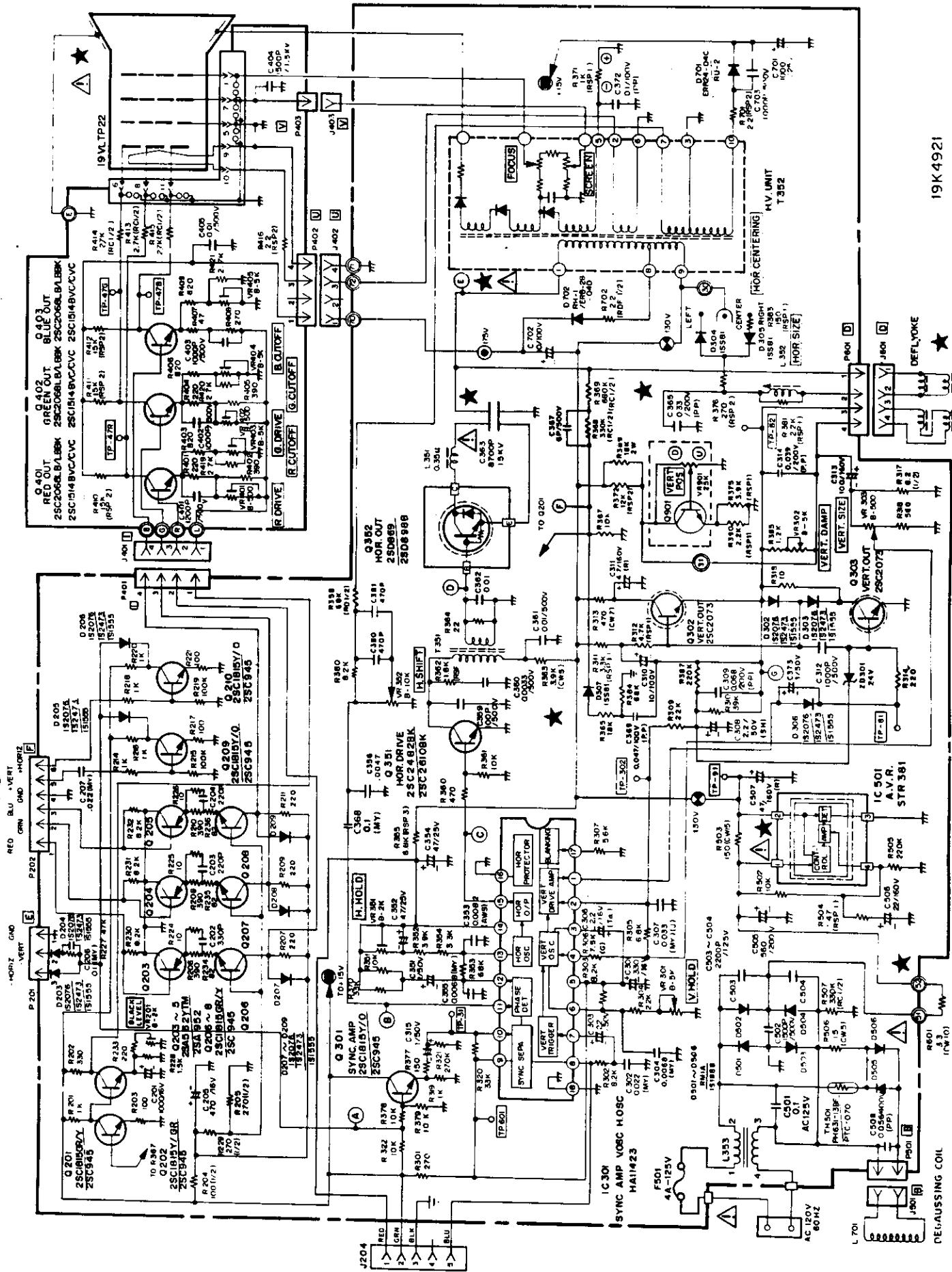
NTSC DECODER SPECIFICATIONS

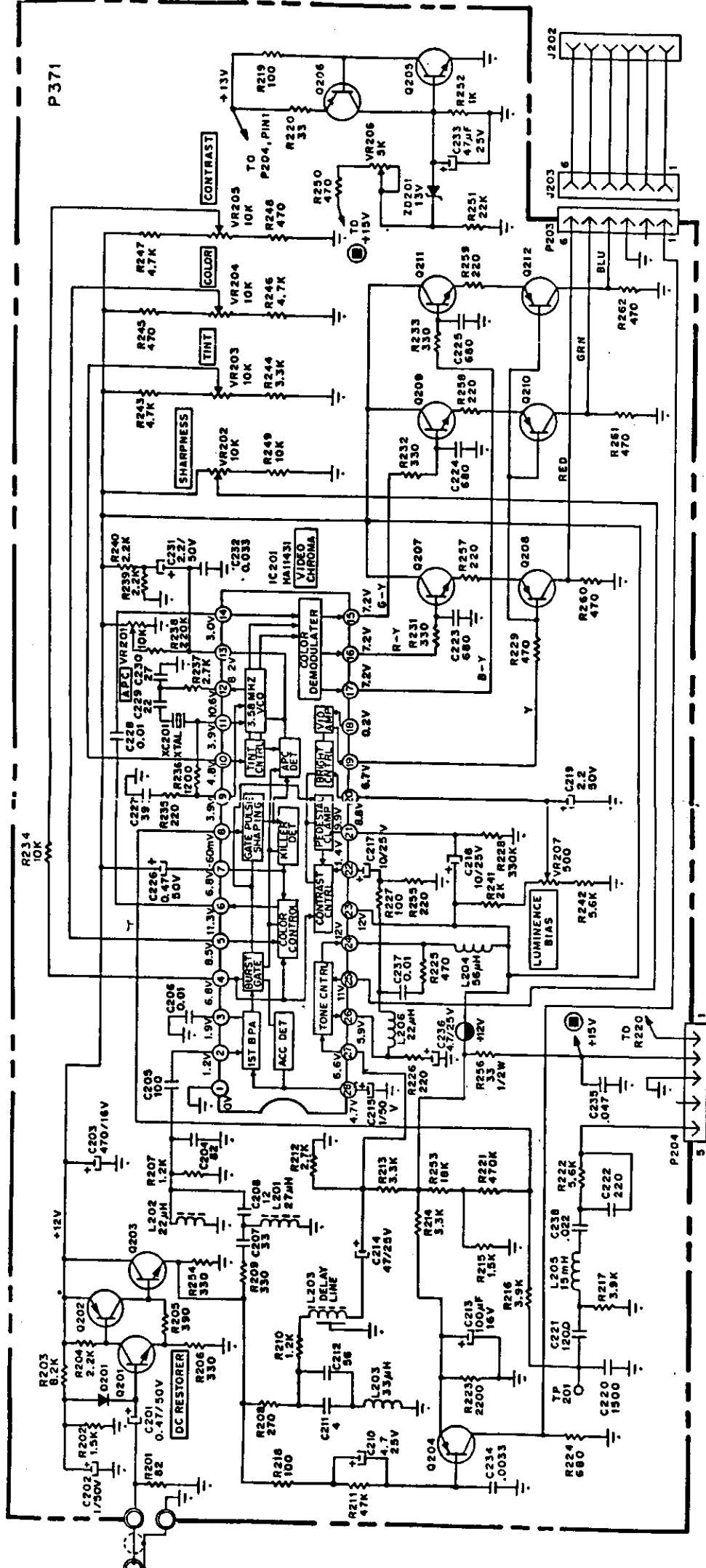
Pin Outs

P101-1 75 ohm Input
P101-2 Ground
P102-1 Vs Supply (16V)
P102-2 External Tint Wiper
P102-3 External Color Wiper
P102-4 Ground to Control
P102-5 External Detail Wiper
P102-6 Not Used
P102-7 Vcc to Control (12V)
P103-1 Ground
P103-2 Blanking Output
P103-3 Positive Composite Sync.
P103-4 Red Output
P103-5 Green Output
P103-6 Blue Output



19" COLOR GAME MONITOR SCHEMATIC DIAGRAM





WELLS GARDNER NTSC DECODER SCHEMATIC

MAGICOM WIRING HARNESS

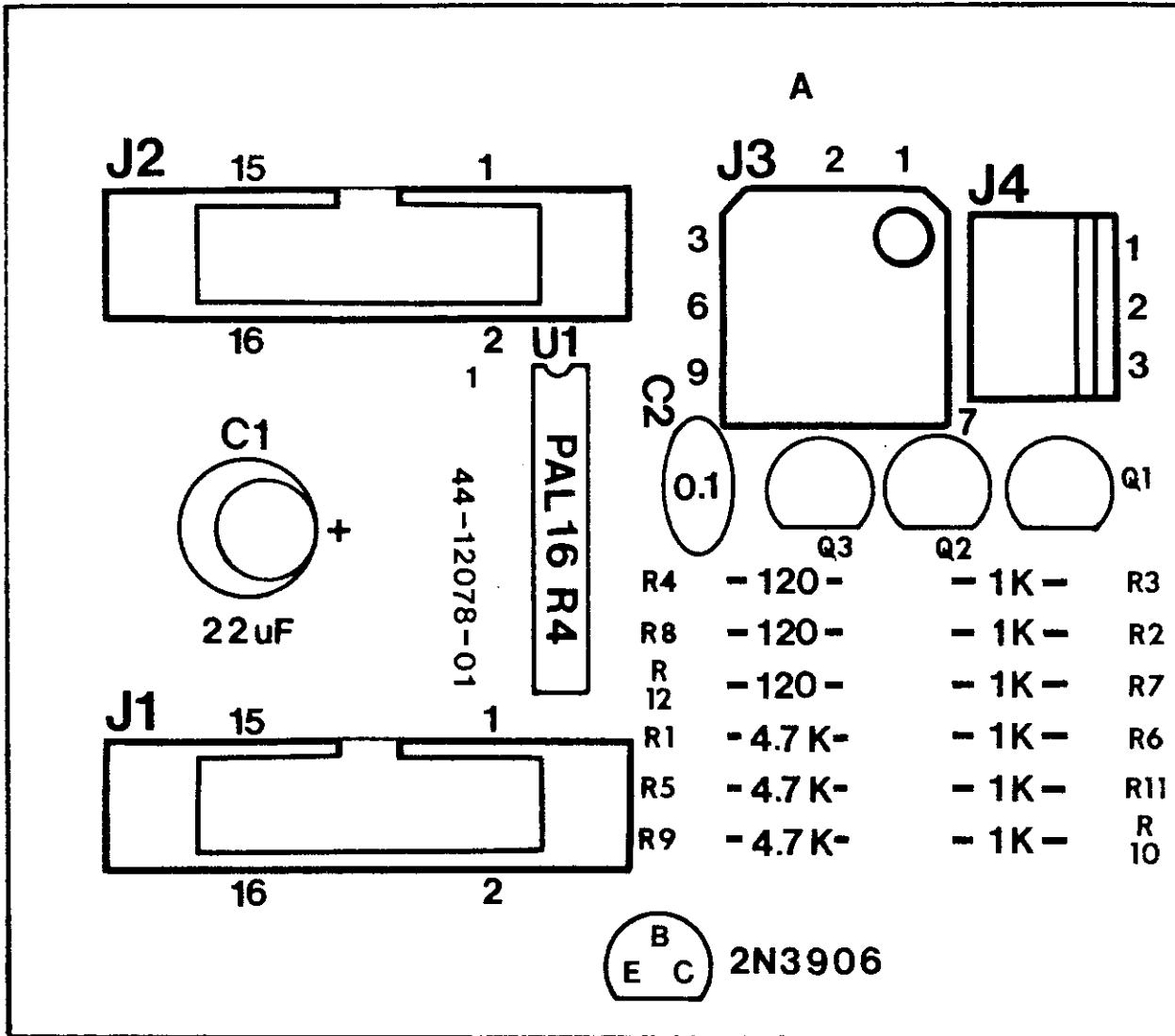
| FROM | PIN | TO | PIN | SIGNAL |
|------|---------|------|---------|--------------------------|
| LF | HOT | SW | COMMON | AC LINE HOT |
| SW | N/OPEN | PS1 | 3 | AC LINE HOT |
| SW | N/OPEN | VDP | HOT | AC LINE HOT |
| LF | NEUTRAL | PS1 | 2 | AC LINE NEUTRAL |
| LF | NEUTRAL | VDP | NEUTRAL | AC LINE NEUTRAL |
| PS2 | 1 | ISO | PRI | 115V AC #1 HOT |
| PS2 | 3 | LAMP | HOT | 115V AC #2 HOT |
| PS2 | 3 | FAN | HOT | 115V AC #2 HOT |
| PS2 | 2 | ISO | PRI | 115V AC #1 NEUTRAL |
| PS2 | 4 | LAMP | NEUTRAL | 115V AC #2 NEUTRAL |
| PS2 | 4 | FAN | NEUTRAL | 115V AC #2 NEUTRAL |
| MON | FRAME | LAMP | FRAME | FRAME GROUND |
| PS1 | 1 | MON | FRAME | FRAME GROUND |
| LF | FRAME | PS1 | 1 | FRAME GROUND |
| LF | FRAME | CPU | FRAME | FRAME GROUND |
| CPU | FRAME | COIN | 3 | FRAME GROUND |
| COIN | 3 | OCP | 9 | FRAME GROUND |
| OCP | 9 | CP | 7 | FRAME GROUND |
| PS1 | 9 | CPU | 3 | +5V |
| PS1 | 10 | CPU | 4 | +5V |
| PS1 | 11 | CPU | 7 | +5V RETURN |
| PS1 | 7 | CPU | 30 | +25V |
| PS1 | 12 | CPU | 8 | +25V RETURN |
| PS1 | 5 | COIN | 8 | 6.3V AC LAMPS |
| PS1 | 4 | COIN | 9 | 6.3V AC LAMPS RETURN |
| COIN | 1 | CPU | 10 | COIN SLOT 0 |
| COIN | 2 | CPU | 14 | COIN SLOT 1 |
| COIN | 7 | CPU | 11 | COIN RETURN |
| CP | 2 | CPU | 6 | 2 PLAYER START |
| CP | 3 | CPU | 2 | 1 PLAYER START |
| CP | 4 | CPU | 1 | JOYSTICK RIGHT |
| CP | 5 | CPU | 29 | SWORD/ACTION |
| CP | 6 | CPU | 5 | JOYSTICK LEFT |
| CP | 8 | CPU | 9 | JOYSTICK DOWN |
| CP | 9 | CPU | 13 | JOYSTICK UP |
| CP | 1 | CPU | 12 | CONTROL PANEL RETURN |
| OCP | 4 | CPU | 33 | COIN COUNTER |
| OCP | 8 | CPU | 32 | COIN COUNTER RETURN |
| OCP | 3 | VDP | CENTER | DISC AUDIO (LEFT) |
| OCP | 1 | VDP | SHIELD | DISC AUDIO RETURN (LEFT) |
| OCP | 5 | VDP | CENTER | DISC AUDIO (RIGHT) |

| | | | | |
|-----|----|------|--------|---------------------------|
| OCP | 7 | VDP | SHIELD | DISC AUDIO RETURN (RIGHT) |
| OCP | 2 | CPU | 24 | VOLUME OUT (LEFT) |
| OCP | 1 | CPU | 23 | VOLUME OUT RETURN (LEFT) |
| OCP | 6 | CPU | 16 | VOLUME OUT (RIGHT) |
| OCP | 7 | CPU | 15 | VOLUME OUT RETURN (RIGHT) |
| CPU | 28 | SPKR | L+ | SPEAKER (LEFT) |
| CPU | 27 | SPKR | L- | SPEAKER RETURN (LEFT) |
| CPU | 20 | SPKR | R+ | SPEAKER (RIGHT) |
| CPU | 19 | SPKR | R- | SPEAKER RETURN (RIGHT) |

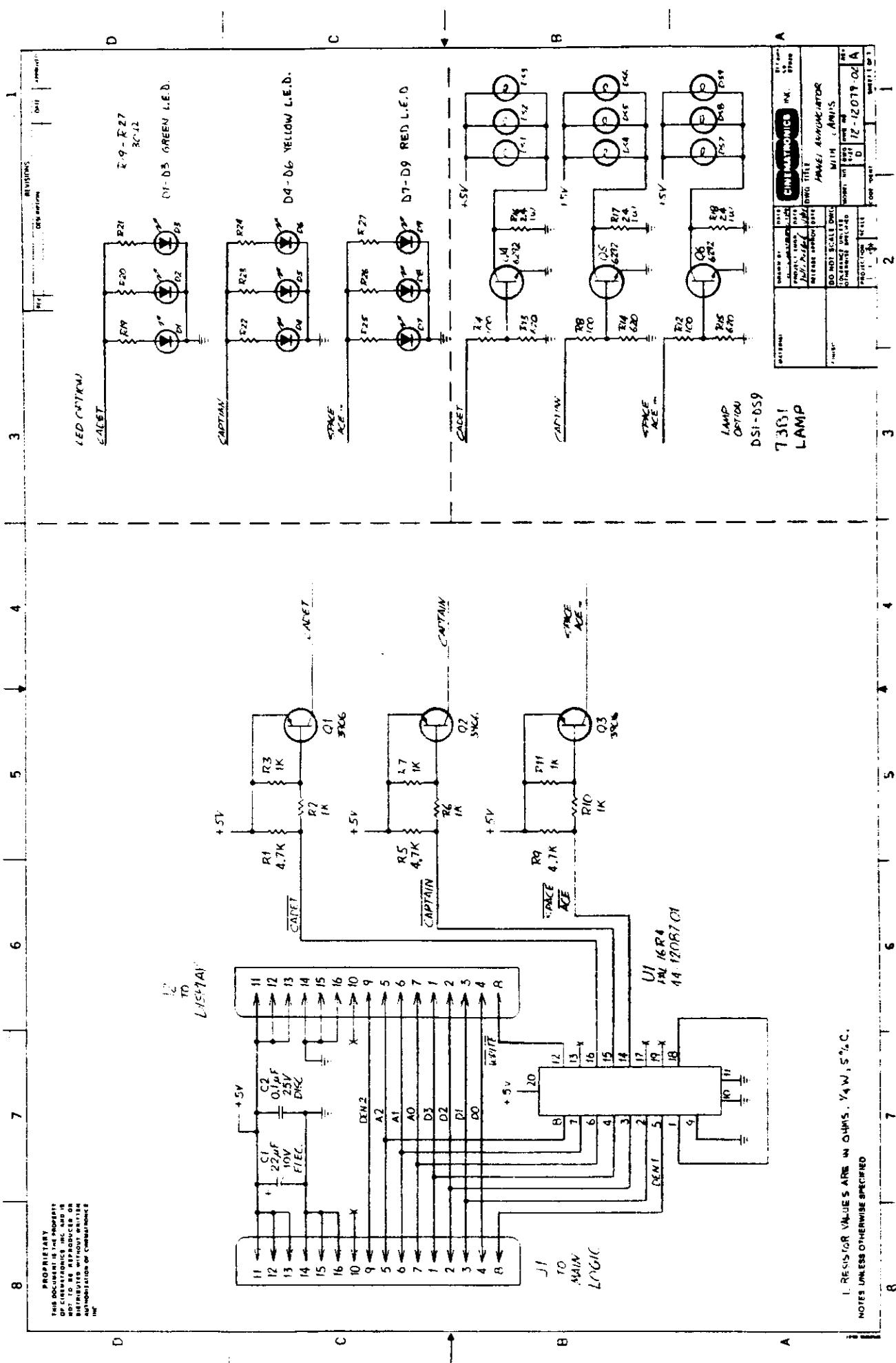
PS1 = POWER SUPPLY 12 PIN CONNECTOR
PS2 = POWER SUPPLY 4 PIN CONNECTOR
FAN = COOLING FAN
SW = POWER SWITCH
CPU = LOGIC BOARD
LAMP = FLORESCENT LAMP
CP = CONTROL PANEL
SPKR = SPEAKERS
COIN = COIN DOOR
MON = MONITOR
VDP = VIDEODISC PLAYER
LF = AC LINE FILTER
OCP = OPERATOR CONVENIENCE PANEL
ISO = MONITOR ISOLATION TRANSFORMER

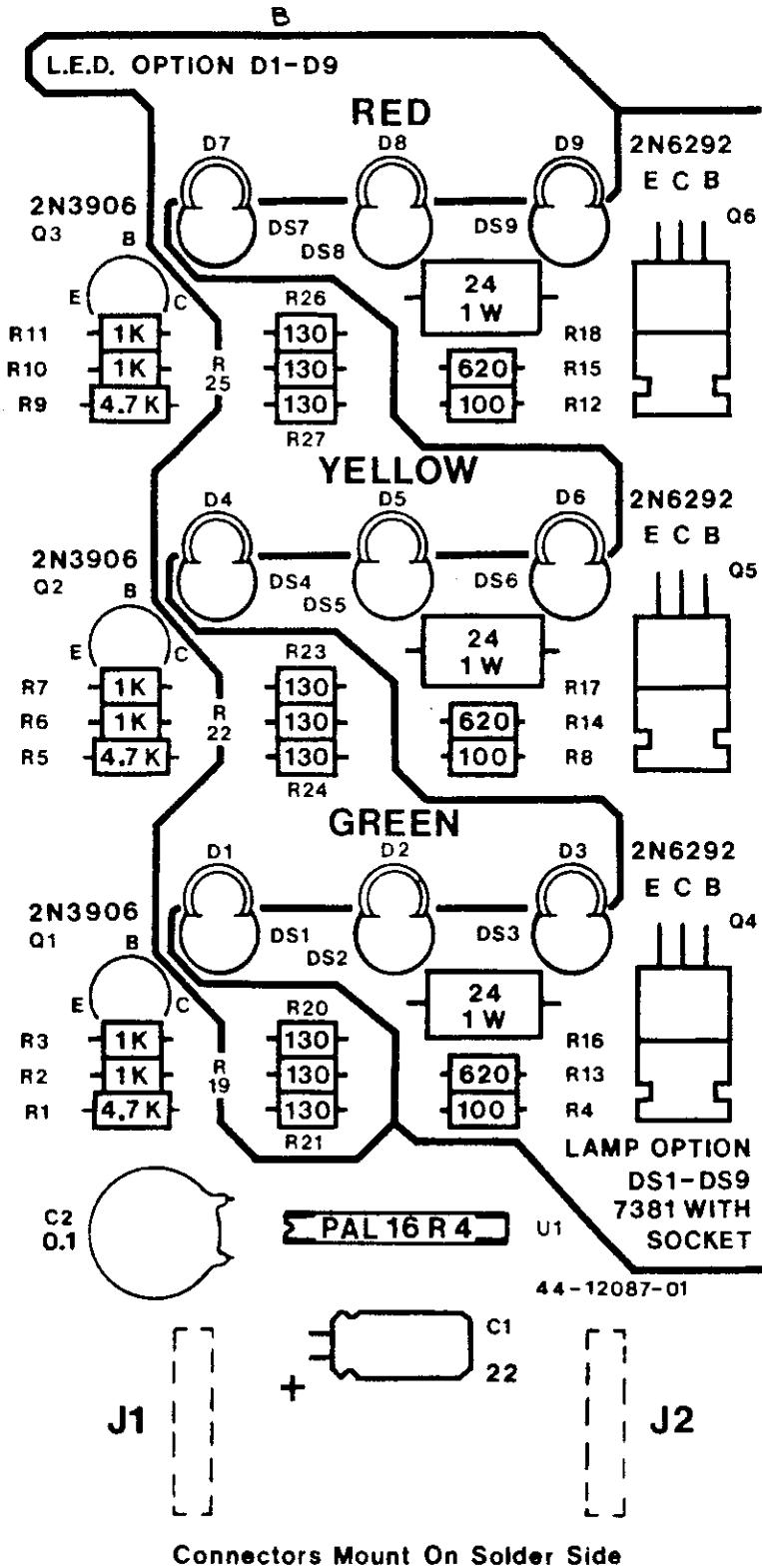
NOTE: GAMES EQUIPPED WITH PR7820 DISC PLAYERS HAVE DISC
PLAYER FRAME GROUND TIED TO LINE FILTER FRAME GROUND.

| APPLICATION | | REVISIONS | | |
|-------------|---------|-----------|------|-------------|
| NEXT ASSY | USED ON | APPROVED | DATE | DESCRIPTION |
| | | | | |



| | | | | | |
|---|-----------|---------|-----------------------|-------------------------|---------------------------------------|
| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRAC. DEC. ANGL. + .XX± ± - .XXX± | APPROVALS | DATE | CINEMATRONICS INC. | | El Cajon Ca. 92020 |
| CHK | APPD | 1-28-84 | | | |
| MATERIAL | APPD | | | | PANEL ANNUNCIATOR BOARD CONVERSION |
| FINISH | APPD | | | | |
| DO NOT SCALE DWG | | | SIZE A | DRAWING NUMBER REV A | 81-12079-01 |
| | | | SCALE 2:1 | | SHEET 1 OF 1 |





1 FEBRUARY 1984

| | | |
|---|--|----------------------------|
| DRAWN BY: <i>DALE SCHAFF</i> | | DATE: <i>2/1/84</i> |
| PROJECT ENGR: <i>DALE SCHAFF</i> | | DATE: <i>2/1/84</i> |
| RELEASE APPROV: <i>DALE SCHAFF</i> | | DATE: <i>2/1/84</i> |
| FINISH: BREAK ALL SHARP EDGES AND DEBURR ALL HOLES. | | |
| TOLERANCE: UNLESS OTHERWISE SPECIFIED | | |
| PROJECTION: <input checked="" type="checkbox"/> 2:1 <input type="checkbox"/> 1:2 <input type="checkbox"/> 1:4 | | |
| MATERIAL: <i>PCB</i> | | CODE IDENT: <i>2:1</i> |
| DWG NO. <i>81-12079-02</i> | | REV. <i>B</i> |
| DWG SIZE <i>B</i> | | DWG NO. <i>81-12079-02</i> |
| CODE IDENT: <i>2:1</i> | | SHEET 1 OF 1 |

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